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09/420,772	10/19/1999	OSAMU YAMADA	862.3073	3279
5514	7590	01/24/2006	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO			LE, BRIAN Q	
30 ROCKEFELLER PLAZA			ART UNIT	
NEW YORK, NY 10112			PAPER NUMBER	
			2621	
DATE MAILED: 01/24/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/420,772

Applicant(s)

YAMADA ET AL

Examiner

Brian Q. Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/27/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4, 7, 12-16 and 19-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 7, 12-16 and 19-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment and Arguments

1. Applicant's amendment filed December 27, 2005, has been entered and made of record.
2. Applicant's arguments with regard to claims 1, 4, 7, 12-16 and 19-22 have been fully considered, but are not considered persuasive because of the following reasons:

Regarding the rejection of claims 1, 3-4, 7, 12-16 and 19-22 under 35 U.S.C. 112, first paragraph regarding the language limitations of "wherein the first conversion line converts a substantially minimum input value of a saturation of the image to a substantially minimum output value" and "wherein the second conversion line converts a substantially maximum input value of the saturation of the image to a substantially maximum output value". The Applicant continues to use FIG. 12 to cite as support for the limitations (page 9 of Remarks). First, what are "substantially minimum input value" and "substantially maximum output value"? One skilled in the art would understand minimum/maximum input/output values; however, "substantially minimum/maximum input/output values" have no clear definition of the value/range/boundary for one skilled in the art to determine a "substantially minimum/maximum input/output values". This also raises the issue of indefinite claim's language, 35 U.S.C 112, second paragraph, indefinite claim language. Furthermore, the specification including FIG. 12, do not show what is value/range/boundary that can be determined as "substantially minimum/maximum input/output value". Second, the Applicant again uses FIG. 12 to show the support of the limitation "wherein the second conversion line is set independently from the first conversion line. The Applicant continues to explain that there are two different conversion lines on the same plotted line of the graph. Again, one skilled in the art does not understand of the possibility of two separate/independent lines in the same plotted curve. Mathematically, points/values on plotted

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line are dependent or correlated or relate to each other in order to generate a line. Thus, the Miyashita Reference discloses this limitation since the reference teaches a single saturation curve, by the definition of FIG. 12, which can have two conversion lines by reasonable interpretation.

Thus, the rejections of all of the claims are maintained.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 1, 3-4, 7, 12-16, and 19-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Regarding claims 1, 16, 19, 21, 22, the language limitations of “wherein the first conversion line converts a substantially minimum input value of a saturation of the image to a substantially minimum output value” and “wherein the second conversion line converts a substantially maximum input value of the saturation of the image to a substantially maximum output value” are not supported in the original disclosure. Also referring to claim 1, the amended limitation “wherein the second conversion line is set independently of the first conversion line” is not supported by the original disclosure (even as indicated by the Applicant, FIG. 12). The Applicant is required to point out the exact page number and line number for the support of this claimed language.

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Claims not specifically addressed depend from indefinite antecedent claims.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1, 4, 7, 12-16, and 19 - 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyashita U.S. Patent No. 6,031,543.

Referring to claim 1, Miyashita teaches an image processing apparatus comprising:

Saturation calculation (saturation correction) unit (FIG. 16) arranged to calculate saturation information of an image;

A first setting unit, arranged to set a first conversion line for a low-saturation side; (column 6, lines 48-62; column 8, lines 3-15 and 37-55 and column 10, lines 25-44) (Miyashita teaches the data manipulation of parameters for color correction which including hue or saturation (column 8, line 9) for whether at low or high-saturation), wherein the first conversion

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line converts a substantially minimum input value of a saturation of the image to a substantially minimum output value (low saturation/ a_{MIN}/b_{MIN}) (a_{MIN}/b_{MIN} by the linear conversion curve will generate the minimum output value) (Please refer to column 12, lines 30-65; column 13, lines 5-47 and FIG. 33-FIG. 37).

A second setting unit, arranged to set a second conversion parameter for a high-saturation side; (column 6, lines 48-62; column 8, lines 3-15 and 37-55 and column 10, lines 25-44) (Miyashita teaches the data manipulation of parameters for color correction which including hue or saturation (column 8, line 9) for whether at low or high-saturation), wherein the second conversion line converts a substantially maximum input value of a saturation of the image to a substantially maximum output value (high saturation/ a_{MAX}/b_{MAX}) (a_{MAX}/b_{MAX} by the linear conversion curve will generate the maximum output value) (Please refer to column 12, lines 30-65; column 13, lines 5-47 and FIG. 33-FIG. 37), wherein the second conversion line is set independently of the first conversion line (FIG. 16, FIG. 27C, FIG. 29 and FIG. 31).

A saturation conversion characteristic generating unit arranged to generate a saturation conversion characteristic on the basis of the first conversion line, for the low-saturation side, and the second conversion line, for the high-saturation side (column 8, lines 3-29);

A saturation conversion unit (FIG 44 and FIG 45) arranged to convert the saturation (column 3, line 40-44) of the image on the basis of the saturation conversion characteristic.

It is clear that saturation calculation also is saturation correction especially as demonstrated in FIG 16, a saturation correction requires analysis of color and colors saturation conversion.

Referring to claim 4, Miyashita teaches the apparatus further comprising:

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An instruction unit arranged to accept an instruction input by a user (column 3, line 58-60; column 4, lines 1-26) in order to determine the first conversion line, for the low-saturation side, and the second conversion parameter, for the high-saturation side (column 10, lines 22-29).

Referring to claim 7, Miyashita teaches the apparatus wherein the saturation conversion characteristic exhibits a monotonous increase (column 11, line 33-46).

Referring to claim 12, Miyashita discloses the apparatus further comprising:

A detection unit arranged to detect a color distribution of the image (FIG 6, FIG 7 and column 5, line 54);

A generation unit arranged to generate gradation correction information (column 8, line 44-46) of the image on the basis of the color distribution; and

A gradation correction unit arranged to perform gradation correction of the image on the basis of the gradation correction information (column 8, line 22-29 and column 8, line 52-55).

For claim 13, Miyashita also teaches the apparatus wherein said saturation conversion unit (FIG 44 and FIG 45) performs saturation conversion on an image which has undergone the gradation correction (column 9, line 21-24) by said gradation correction unit. Also it is inherent that gradation correction is required during the gradation conversion process which is clearly described by Miyashita.

Referring to claim 14, Miyashita further teaches the apparatus wherein said generation unit comprises:

A highlight calculation unit (FIG 25, FIG 26A, FIG 26B, FIG 26E and FIG 26F) arranged to calculate highlight area information (column 9, line 25-31) of an image on the basis of the color distribution; and

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A white balance calculation unit (FIG 28-115 and 117) arranged to calculate white balance information on the basis of the highlight area information (FIG 29-115 and 117, FIG 30-115 and 117, FIG 31-115 and FIG 32-115) and a predetermined highlight value (column 10, line 24-32, "HL" parameters), and wherein

Said gradation correction unit corrects gradation of the image on the basis of the white balance information and the highlight value (column 10, line 25-44).

It is inherent that highlight and intensity are the white balance calculation. Without these two parameters, white balance calculation can not be processed properly.

Referring to claim 15, Miyashita discloses the apparatus wherein said generation unit comprises:

A shadow calculation unit arranged to calculate shadow information of an image (FIG 25, FIG26C, FIG26D-FIG26F, FIG28-32); and

A black balance calculation unit (FIG 25, FIG26C, FIG26D-FIG26F and FIG28-116 and 117) arranged to calculate black balance information on the basis of the shadow area information (FIG 28, 116-117; FIG 29, 116-117; FIG 30, 116-117) and a predetermined shadow value (column 10, line 24-32, "SD" parameters), wherein

Said gradation correction unit corrects gradation of the image on the basis of the black balance information and the shadow value (column 10, line 25-44).

It is inherent that shadow and the intensity are also the black calculation. Without these two significant means, black balance calculation can not be determined.

For claims 16, please refer back to the explanation of claims 1 and 3.

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For claim 19, please refer to claim 1 for all the limitation. Furthermore, Miyashita discussed the concept of recording medium (storage system) (column 1, 64-67) that allow program codes (software or executable program) (column 3, line 62-63) to allow user to control the image processing method. Therefore, it is inherent to have a recording medium comprising program codes of an image processing method comprises the limitation of claim 1.

Regarding claim 20, please refer back to claim 4 for the explanation.

For claims 21-22, please refer back to claims 1 and 19 for the teachings and the explanations.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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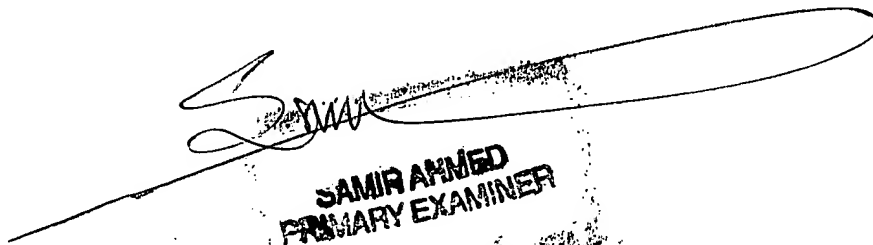
Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Q. Le whose telephone number is 571-272-7424. The examiner can normally be reached on 8:30 A.M - 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on 571-272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BL
January 18, 2006


SAMIR AHMED
PRIMARY EXAMINER